Amendments to the Claims:

Please cancel claims 1-21 and add new claims 22-28 as follows:

1. Canceled.

2. Canceled.

3. Canceled.

4. Canceled.

5. Canceled.

6. Canceled.

7. Canceled.

8. Canceled.

9. Canceled.

10. Canceled.

11. Canceled.

12. Canceled.

13. Canceled.

14. Canceled.

15. Canceled.

16.   Canceled.

17.   Canceled.

18.   Canceled.

19.   Canceled.

20.   Canceled.

21.   Canceled.

22.   (Newly Added)   A method of performing delay measurements of an integrated circuit having a scan chain for boundary scan testing, where the method comprises the steps of:

entering a delay measurement mode;

applying a test data signal to a test data input for boundary scan testing; and

performing a delay measurement at a separate delay chain output port which is the output of a local combinational path from the end of the scan chain and which is additional to the test data output port for boundary scan testing, to determine the performance of the integrated circuit, the combinational local path does not interfere with the operation of the scan chain due to the delay chain output port being kept in a tristate condition or by pulling the test data input to operating voltage.

23.   (Newly Added)   The method of claim 22 comprising the step of:

performing the delay measurement at the test data output port for boundary scan testing.

24.   (Newly Added)   The method of claim 22 in which the scan cells forming the scan chain have a storage layer between a scan input port and an output port, an additional combinational path between the scan input port and the scan output port of a

respective scan cell, and a multiplexer, connected to the output of the additional combinational path and the output of the storage layer, to provide the scan output port signal; and the steps of:

applying a test data signal to a test data input also consists in connecting the scan input port of a first scan cell to the test data input port for boundary scan testing;

connecting the scan output port of a scan cell forming the end of the scan chain via circuitry to the test data output port for boundary scan testing; and

connecting the output port of a boundary scan cell forming the end of the scan chain to the separate delay chain output port (DCO) via a test data output path.

25.   (Newly Added)   The method of claim 24 wherein the step of applying a test data signal also comprises the step of:

providing of the at least one boundary scan cell according to the IEEE Standard 1149.1.

26.   (Newly Added)   The method of claim 24 wherein the step of performing the delay measurement comprises the step of:

implementing a local path between said respective two scan ports by bypassing the respective storage layer of a boundary scan cell so as to provide the additional combinational path.

27.   (Newly Added)   The method of claim 24 wherein the combinational path is connected to the scan output port via a multiplexer controlled by the shift signal from a test access port controller.

28.   (Newly Added)   The method of claim 24 wherein the additional combinational path is defined as false path during synthesizing of the scan chain.